

## Analog Peripherals

### 12-Bit ADC, 5 V input signal; up to six external inputs

- $\pm 1$  LSB INL; guaranteed monotonic
- Programmable throughput up to 200 ksp/s
- Data-dependent windowed interrupt generator
- Programmable gain maximizes input signal span

### Built-in Temperature Sensor ( $\pm 3$ °C)

### Programmable Comparator

### Precision Internal Voltage Reference

### V<sub>DD</sub> Monitor/Brown-out Detector

### On-Chip Debug

- On-chip debug circuitry facilitates full speed, non-intrusive in-system debug (no emulator required)
- Provides breakpoints, single stepping, watch-points
- Inspect/modify memory, registers, and stack
- Superior performance to emulation systems using ICE-chips, target pods, and sockets

### Temperature Range: -40 to +125 °C

### Operating Voltage: 1.8 to 5.25 V

- Multiple power saving sleep and shutdown modes

### Development Kit: C8051F530ADK

## High-Speed 8051 $\mu$ C Core

- Pipelined instruction architecture; executes 70% of instructions in one or two system clocks
- Up to 25 MIPS throughput

## Memory

- 2 kB Flash; in-system programmable; flexible security features
- 256 bytes data RAM

## LIN 2.1

- Master or slave operation using dedicated hardware

## Digital Peripherals

- Up to six digital I/O; all are 5 V push-pull
- SPI™ and UART serial ports available concurrently
- Programmable 16-bit counter array with three capture/compare modules
- Three general-purpose 16-bit counter/timers

## Clock Sources

- Internal programmable 0.5% oscillator: Up to 25 MHz
- External oscillator: Crystal, RC, C, or CMOS Clock

## Ordering Part Number

- C8051F526A-IM, 10-Pin QFN (RoHS-compliant), 3 x 3 mm<sup>2</sup>

